It has been known for some time that the stars of the Pleiades possess a small identical proper motion. Its direction, as ascertained by Newcomb in 1878, is about south-south-east; its amount is somewhat less than six seconds of arc in a century. The double-star 61 Cygni, in fact, is displaced very nearly as much in one year as Alcyone with its train in one hundred. Nor is there much probability that this slow secular shifting is other than apparent: since it pretty accurately reverses the course of the sun's translation through space, it may be presumed that the *backward* current of movement in which the Pleiades seem to float is purely an effect of our own *onward* travelling.

Now the curious fact emerges from Dr. Elkin's inquiries that six of Bessel's stars are exempt from the general drift of the group. They are being progressively left behind. The inference is obvious, that they do not in reality belong to, but are merely accidentally projected upon, it: or, rather, that it is projected upon them; for their apparent immobility (which, in two of the six, may be called absolute) shows them with tolerable certainty to be indefinitely more remote—so remote that the path, moderately estimated at 21,000,000,000 miles in length, traversed by the solar system during the forty-five years elapsed since the Königsberg measures, dwindles into visual insensibility when beheld from them! The brightest of these six far-off stars is just above the eighth (7·9) magnitude; the others range from 8·5 down to below the ninth.

A chart of the relative displacements indicated for Bessel's stars by the differences in their inter-mutual positions as determined at Königsberg and Yale, accompanies the paper before us. Divergences exceeding 0″·40 (taken as the limit of probable error) are regarded as due to real motion; and this is the case with twenty-six stars besides the half-dozen already mentioned as destined deserters from the group. With these last may be associated two stars surmised, for an opposite reason, to stand aloof from it. Instead of tarrying behind, they are hurrying on in front. An excess of the proper movement of their companions belongs to them; and since that movement is presumably an effect of secular parallax, we are justified in inferring their possession of an extra share of it to signify their greater proximity to the sun. Hence, of all the stars in the Pleiades these are the most likely to have a measurable annual parallax. One is a star a little above the seventh magnitude, distinguished as *s* Pleiadum; the other, of about the eighth, is numbered 25 in Bessel's list. Dr. Elkin has not omitted to remark that the conjecture of their disconnexion from the cluster is confirmed by the circumstance that its typical spectrum (as shown on Prof. Pickering's plates) is varied in *s* by the marked character of the K line. The spectrum of its fellow-traveller (No. 25) is still undetermined.

It is improbable, however, that even these nearer stars are practicable subjects for the direct determination of annual parallax. By indirect means, however, we can obtain some idea of their distance. All that we want to know for the purpose is the *rate* of the sun's motion; its *direction* we may consider as given with approximate accuracy by Airy's investigation. Now, spectroscopic measurements of stellar movements of approach and recession will eventually afford ample materials from which to deduce the solar velocity; though they are as yet not accurate or numerous enough to found any definitive conclusion upon. Nevertheless, M. Homann's preliminary result of fifteen miles a second as the speed with which our system travels in its vast orbit, inspires confidence both from the trustworthiness of the determinations (Mr. Seabroke's) serving as its basis, and from its intrinsic probability. Accepting it provisionally, we find the parallax of Alcyone = about 0″·02, implying a distance of 954,000,000,000,000 miles, and a light-journey of 163 years. It is assumed that the whole of its proper motion of 2″·61 in forty-five years is the visual projection of our own movement towards a point in R.A. 261°, Decl. + 25°.

Thus, the parallax of the two stars which we suspect to lie between us and the stars forming the genuine group of the Pleiades, at perhaps two-thirds of their distance, can hardly exceed 0″·03. This is just half that found by Dr. Gill for ζ Toucani, which may be regarded as, up to this, the smallest annual displacement at all satisfactorily determined. And the error of the present estimate is more likely to be on the side of excess than of defect. That is, the stars in question can hardly be much nearer to us than is implied by an annual parallax of 0″·03, and they may be considerably more remote.

Dr. Elkin concludes, from the minuteness of the detected changes of position among the Pleiades, that "the hopes of obtaining any clue to the internal mechanism of this cluster seem not likely to be realized in an immediate future;" remarking further: "The bright stars in especial seem to form an almost rigid system, as for only one is there really much evidence of motion, and in this case the total amount is barely 1″ per century." This one mobile member of the naked-eye group is Electra; and it is noticeable that the apparent direction of its displacement favours the hypothesis of leisurely orbital circulation round the leading star. The larger movements, however, ascribed to some of the fainter associated stars are far from harmonizing with this preconceived notion of what they ought to be. On the contrary, so far as they are known at present, they force upon our minds the idea that the cluster may be undergoing some slow process of disintegration. M. Wolf's impression of incipient centrifugal tendencies among its components certainly derives some confirmation from Dr. Elkin's chart. Divergent movements are the most strongly marked; and the region round Alcyone suggests, at the first glance, rather a very confused area of radiation for a flight of meteors, than the central seat of attraction of a revolving throng of suns.

There are many signs, however, that adjacent stars in the cluster do not pursue independent courses. "Community of drift" is visible in many distinct sets; while there is as yet no perceptible evidence, from orbital motion, of association into subordinate systems. The three eighth-magnitude stars, for instance, arranged in a small isosceles triangle near Alcyone, do not, as might have been expected *a priori*, constitute a real ternary group. They are all apparently travelling directly away from the large star close by them, in straight lines which may of course be the projections of closed curves; but their rates of travel are so different as to involve certain progressive separation. Obviously, the order and method of such movements as are just beginning to develop to our apprehension among the Pleiades will not prove easy to divine.

A. M. CLERKE.

NOTES.

STRENUOUS efforts have been made to secure that the arrangements for the observation of the total solar eclipse of August 19 shall be adequate. "A large number of astronomers," says the *Times* of the 15th inst., "will be distributed along the central line, fully equipped with instruments suited to the particular work they intend to do. The Russians themselves have most energetically organized a very complete set of observations, meteorological and otherwise, at widely-distant stations, viz. Krasnoiarsk in Siberia, Perm in the Ural Mountains, and Viatka in Central Russia; while Prof. Mendeljew goes to Pavlovsk, near St. Petersburg; Prof. Bredichin, of the Moscow Observatory, to Kineshma; and Dr. Podsolnotschnaja will be stationed near Tver. Several foreign astronomers will also visit Russia, and have received very hospitable treatment at the hands of Prof. Struve and the other Russian authorities. From

England, Dr. Copeland, of Lord Crawford's Observatory, and Father Perry, of Stonyhurst, have accepted an invitation from Prof. Bredichin to two members of the Astronomical Society, and have already joined him at Kineshma; and Mr. Turner, from the Greenwich Observatory, will occupy a station selected by Prof. Struve. Prof. Young and Prof. M'Neill, from America, have gone to Tver; and two other American astronomers will also make observations. Prof. Tacchini and Dr. Riccò, from Italy, have gone to Viatka; and two German delegates and one French have also been sent." We may add that there will be an American photographic and spectroscopic station in Japan.

Several very good speeches were delivered last Saturday in the course of the debate on the Education Estimates. Mr. Mundella did excellent service by insisting, as he had often done before, on the necessity for a higher standard of education in our elementary schools. A great many people seem still to be of opinion that the State discharges all its obligations in this matter if it secures that children shall learn to read and write. But what is the good of teaching children to read and write if they are not also taught how to put the power, when they have acquired it, to a proper use? The chances are that reading and writing, if education goes no further, will soon be forgotten. Long ago this was pointed out by M. Thiers, who showed that children in France who could read and write at the age of eleven ceased to be able to do either before they entered the army as conscripts. If education is to be of real value, it must be carried on to an age when boys and girls are capable of taking an interest in "things of the mind," and they must receive instruction in subjects which they are likely to find attractive. This was urged with much force by Sir John Lubbock, who argued that history and natural science should receive far more attention than is now devoted to them in elementary schools, and that manual instruction ought to be added to the list of the optional class subjects.

From the Aiken (South Carolina) *Recorder* of the 19th ult we learn that Dr. Henry William Ravenel died on July 17, after a protracted illness. He was a native of the State in which he died, and early in life botany was his favourite pursuit, and fungi his specialty. Soon after graduating he engaged in cotton planting, and continued it for twenty years. Subsequently he devoted more time to botany, and during the last few years of his life he was Botanist to the South Carolina State Department of Agriculture. The infirmity of deafness prevented him from taking any other post. He published a few short papers, chiefly on the plants of his native State; but he was more widely known from his "Fungi Caroliniani Exsiccati," of which he issued a number of fasciculi; and the "Fungi Americani Exsiccati," which he prepared in conjunction with Dr. M. C. Cooke. He was a member of several scientific Societies, and in 1886 the degree of LL.D. was conferred on him by the University of North Carolina.

The Curatorship of the Natural History Department of the Science and Art Museum of Dublin is now vacant, owing to the resignation, through ill-health, of Mr. A. G. More. Mr. More has been associated with the Institution for twenty years. He succeeded to the Curatorship six years ago, on the death of Dr. Carte, and the condition of that portion of the Museum over which he presided testifies to-day to his abilities as an administrator, and to the exceptional skill of himself and those who have been associated with him. As a botanist he is best known as joint author with the late Dr. Moore of the "Cybele Hibernica"; as a zoologist his name is honourably associated with British ornithology. Numerous notes and papers, scattered throughout various journals, give evidence of his scientific attainments and activity; and by no means an inconsiderable portion of his experience lies buried in publications on the Irish fauna and flora, for, with characteristic good-nature, he has always been willing to help local naturalists with his experience and critical knowledge. His loss is greatly to be deplored, and we wish the directorate good fortune in the choice of his successor.

The Autumn Congress of the Sanitary Institute of Great Britain will be held at Bolton on September 20 and following days, under the presidency of Lord Basing. The Council invite papers on subjects included in the programme, and will be very glad to receive the personal co-operation and support of all who are interested in the diffusion of sanitary knowledge.

On Saturday last, M. Jovis, accompanied by M. Mallet, made a balloon ascent from Paris, hoping that he might reach a height greater than that attained by any previous aëronaut. The balloon began to ascend at 7.15 a.m., and was visible until 8.10, when it disappeared, having reached, as was supposed, a height of between 7000 and 8000 feet. About eleven o'clock it came down in Belgian Luxembourg. The altitude reached was 22,000 feet. This is far below the "record" of Messrs. Glaisher and Coxwell, who rose to a height of 37,000 feet.

The eighth Bulletin of Miscellaneous Information issued from the Royal Gardens, Kew, has just been published. It contains a series of valuable notes on the Tree Tomato (*Cyphomandra betacea*), the Chocho (*Sechium edule*), the Arracacha (*Arracacia esculenta*), and the Cherimoyer (*Anona Cherimolia*). All these food-plants have been recently introduced from the West Indies to the East Indies. The notes are preceded by the following statement:—"The introduction of the Arracacha was first attempted, at the instance of the Government of India, in 1879, but, after many failures, was only successfully accomplished in 1883. The Chocho was introduced to Ceylon by means of a single plant, which survived the journey direct from Jamaica to Ceylon, in January 1885. The Tree Tomato and Cherimoyer were introduced by seeds, which travel well and are more convenient for distribution than plants. In a few years, no doubt, all these plants will be widely distributed throughout the East, and they will be found useful additions to the vegetable diet of both Europeans and natives. Already the Chocho introduced to Ceylon as recently as 1885 is to be found in the local markets; and the Tree Tomato is mentioned 'as a most valuable acquisition to Southern India.' All the four plants here mentioned are likely to thrive at hill-stations in India and in all districts suitable for coffee and cinchona cultivation. They are sub-tropical rather than tropical in their requirements, and hence no doubt they will be found of service in South Africa, in certain parts of Australia, Northern New Zealand, and in hilly districts generally throughout our tropical possessions. The information here summarized will indicate their usefulness as food-plants, and the sources both in the Old and New World from which future supplies of seeds and plants may conveniently be obtained."

Some doubt has existed as to whether the Chinese have not one or more kinds of plants in use as ginger that are unknown elsewhere. In the Annual Report on the Botanical and Afforestation Department, Hong Kong, for the year 1886, Mr. Charles Ford, Superintendent, says he has taken steps for cultivating all the kinds of plants generally included by the Chinese as ginger, with the hope that he may be able to study them in such a manner as to secure all possible information in connexion with this subject. While at San Ui he was fortunate in obtaining from cultivated plants good flowering specimens. These he dried, and, together with specimens of the roots (properly rhizomes), forwarded to the Director of Kew Gardens for a study of them to be made there, where they can be compared with other kinds, or with specimens of the same kind from other places. The specimens he procured were, without doubt, *Zingiber officinale*, the species commonly in cultivation in other parts of the world. It is possible that some other plant, which is not a true ginger, may be used in making the celebrated Canton preserved ginger, but all the information Mr. Ford has yet obtained points to the species *Zingiber officinale* as the only kind which the Chinese use for this purpose. The ginger cultivated on the Lo-Fau Mountains has a wide reputation amongst the Chinese as being of unusual efficacy in medicine. This superior quality may be derived from peculiarities of soil or climate which communicate to the plant exceptional properties.

A REMARKABLE relation is shown to exist by Dr. C. Bender (*Ann. der Physik und Chemie*, 1887, 8 B., p. 873) between certain physical constants and chemical valency. In experimenting upon the density, expansion, and electrical resistance of several salt solutions, and mixtures of the same, the curious fact was noticed that a very simple relation existed between the number of gramme-molecules of the various salts required per litre of water at 15° C. to make up solutions the physical constants of which should remain unaltered on mixing. It is a well-known fact that on mixing two chemically-inactive salt solutions the physical constants generally diverge very considerably from the arithmetical mean of those of the constituents. But Dr. Bender finds that it is possible to prepare "corresponding" solutions, which on mixture shall retain their physical constants unchanged, the constants of the mixtures forming the arithmetical means of those of the constituent solutions; and further, the strengths of these "corresponding" solutions expressed in gramme-molecules per litre bear extremely simple relations to each other. For example, with respect to density and expansion, a solution of sodium chloride containing 1 gramme-molecule per litre at 15° corresponds with a solution of potassium chloride also containing a gramme-molecule, or a barium chloride solution containing half a gramme molecule, barium being divalent; corresponding with these are also a solution of ammonium chloride containing $\frac{5}{4}$ gramme-molecule, and a lithium chloride solution in which $\frac{3}{2}$ gramme-molecule is dissolved in a litre of water. With respect to electrical conductivity, the following also correspond:—Solutions of $NaCl$, $LiCl$, and $\frac{1}{2}(BaCl_2)$, each containing n gramme-molecules; and of KCl and NH_4Cl, each containing $\frac{3}{4}n$ gramme-molecules per litre. Hence "corresponding solutions" are those whose gramme-molecule contents, respect being had to valency, stand in a simple relation to each other.

THE *American Meteorological Journal* for the months April to July last contains a reprint of a lecture delivered by Prof. Cleveland Abbe, in December last, before the Franklin Institute, on some popular errors in meteorology. We can only draw attention here to a very few of the points taken up. The author first attacks the astro-meteorological predictions made up for a long time in advance, and shows that every effort to demonstrate any appreciable influence of the moon or planets on our atmosphere has signally failed. He refutes the singular belief that animals or birds know more about future weather than man himself, and attributes their migrations and hibernating habits to the results of experience of many past ages, or to natural causes beyond their control; and he shows that what is true of animals is still more clearly true of vegetables, so that nearly all the rules for weather-prediction founded on the behaviour of plants, on the falling of soot in the chimney, &c., relate simply to hygroscopic phenomena, of which a hygrometer will give more accurate indications. The efforts to show that the destruction or growth of forests affects the climate are objected to on the ground that we have not enough observations of rainfall and temperature properly comparable with each other to justify any conclusion whatever. With reference to the fact of less rainfall being caught in gauges high above the ground, the author explains that, although the drops grow as they descend through clouds, they rarely grow after they have nearly reached the ground; the stronger winds to which the gauge is exposed when set high up, carry the drops to one side, and so the higher gauge catches less than the lower one.

THE Monthly Weather Review of the United States for May contains much useful information, and possesses additional interest from the fact of its publication so soon after date. Eleven barometric depressions are traced in the North Atlantic, two of which traversed the ocean from coast to coast. Among the notices of meteors, one of extraordinary size seems to have fallen in a field near Wellsburg, N.Y., making a pit 40 feet wide and 20 feet deep; an effort is to be made to find the meteor. A special feature in these Monthly Reviews is the reports of fogs in the vicinity of the banks of Newfoundland and in the trans-Atlantic routes. Notes on their possible prediction have been published by Sergeant E. B. Garriott in the last three issues of the Review, and ship-masters have been requested to send special reports relative to the fog-banks observed. From the observations already made it is assumed that the differences in the temperature of the air which cause the development of dense fog, are occasioned by the *deflection* of the regular prevailing air-currents by cyclonic areas advancing from the interior of the continent. A knowledge of the movements of these cyclonic areas would, in the opinion of Sergeant Garriott, allow of the prediction of fog in time to send telegraphic warning to ships leaving British ports. Further investigation of the subject by the Signal Office will show whether these hopes are capable of practical realization.

THE Danish Meteorological Institute has published its *Meteorologisk Aarbog* for 1885, with the exception of that portion relating to the colonies, which appears to be one year in arrear of the other parts. The work is divided into three sections. (1) Observations taken in the kingdom of Denmark at 10 principal stations, 102 climatological stations, and 171 for rainfall. At 8 of the principal stations the observations are printed *in extenso*; and there are also monthly and yearly *résumés*. The correction for gravity at lat. 45° is given for the means of the barometric observations, in accordance with the recommendation of the International Meteorological Committee (Paris meeting, 1885). (2) Colonial stations, containing observations in the Faroe Islands, Iceland, Greenland, and one station at Santa Cruz in the West Indies. (3) Observations of air and sea temperature, &c., taken on 21 light-vessels round the Danish coasts. These latter observations are very valuable for determining various questions connected with the range of sea-temperature of the coasts, and the migrations of fish, &c. The Reports of the Meteorological Council show that such observations have been taken for some years in this country, although not regularly published. The Danish observational system dates from 1861, when it was under the charge of the Agricultural Society. The Meteorological Institute has published its year-books since 1873.

AT a recent meeting of the Pekin Oriental Society, Dr. Dudgeon read a paper on "*Kung-fu*, or Taoist Medical Gymnastics." *Kung-fu* means labour, and is applied to the science of movement, including, among other things, massage, shampooing, and other operations on the body practised with the object of preventing and curing disease, and for the comfort and sense of bracing which they confer. One of the thirteen departments in the Chinese great Medical College is that of pressing and rubbing. An early Chinese work on this subject was translated by the Jesuits in 1779, and first drew the attention of Europe to the subject and stimulated inquiry. Ling, a Swede, introduced the movement cure into Europe; but here it rests on definite anatomical knowledge, whereas in

China it can lay claim to no such foundation. The Taoists adopted the practice at a very early period to ward off and cure disease; but in later times charms, incantations, and magic seem to have taken its place. Dr. Dudgeon described the general principles of the art, including active, passive, and breathing movements, and the *rationale* of the Chinese system of medicine on which it is founded. The life of man depends upon the existence of air circulating throughout the system. The vital principle is supposed to reside at a point one inch below the navel; from here the two principles of nature emanate. Thence, according to Chinese notions, proceeds the breath in expiration, and thither it goes in inspiration. The great object of life and also of *Kung-fu* is to nourish this original air, and avoid disease by preventing the admission of depraved air. Dr. Dudgeon gave a description of the various movements prescribed for various diseases. Some of these are complicated, and many ridiculous, but the practice appears to hold its place still in Chinese medicine.

AT a recent meeting of the French Société d'Encouragement, M. Grosfils, of Verviers, described a new method he had hit upon for preserving butter. The principle of it is, to hinder the crystallization of salicylic acid added to the butter, and so maintain its antiseptic power indefinitely. This he effects by means of lactic acid, which is a pretty strong solvent of salicylic acid. The composition he had arrived at consists of 98 parts of water, 2 parts of lactic acid, and $\frac{1}{5000}$ of salicylic acid. This will preserve good butter indefinitely, even at high temperatures and in hot countries. M. Grosfils estimates that the butter, supposing it retains 5 per cent. of its weight of liquid, will retain 1 part of salicylic acid to 100,000. Lactic acid beyond 2 per cent. gives a slightly acidulated taste which might affect the saleability of the butter: this may be removed by simple washing with water, or, better, with skim-milk containing a little bicarbonate of soda. The preparation of a kilogramme of butter by M. Grosfils' process does not cost more than one or two centimes.

IT appears that, after some years' experiment, M. Jovis, Director of the Aëronautic Union of France, has found a satisfactory varnish for textile materials. It is of great flexibility, contains no oleaginous base, and, while adding little to weight, confers great impermeability. A piece of calico coated with it will retain hydrogen several days, and is not only not disaggregated by the matters applied, but even by use increases their dynamometric force; a matter of great importance for marine cordage, sails, tents, &c. The varnish is also suitable for paintings, wainscoting, &c., and it is exempt from mouldiness. It can be exposed to very varied temperatures without alteration. Lastly, the sub-products can be utilized for coating walls, railway-sleepers, &c. Such is the account presented to the Société d'Encouragement, to which the Aëronautic Union has applied for help to give this new industrial branch a worthy development.

WE have received the Transactions of the Norfolk and Norwich Naturalists' Society for 1886-87. This is the eighteenth annual volume issued by this flourishing Society. The papers are numerous and varied, beginning with the presidential address of Sir Peter Eade, which is devoted to the subject of germ life, more particularly as it affects human and animal life. Mr. Seebohm follows with two papers on the birds of the Lena Delta and of the extreme north of Alaska, and Mr. Harvie-Brown contributes a paper on the birds of Priest's Island. Sir Peter Eade gives an account of two land tortoises (*Testudo græca*) in confinement; and there are two papers on new or rare Norfolk plants. Mr. J. W. Gurney, Jun., has a paper "On the Periodic Movements of Gulls on the Norfolk Coast," and the Rev. H. A. Macpherson writes on "Hybrid Finches." Mr. Francis Day gives descriptions of some remarkable forms of eels found in Saham Mere, Norfolk; and Mr. Southwell has a paper on the "Smelt Fishery in Norfolk," as well as his annual report on the herring fishery from the ports of Yarmouth and Lowestoft. Mr. A. W. Preston continues his meteorological notes. Two papers of more than local interest are contributed by Lieut.-Colonel Feilden and Mr. Herbert Geldart, the former on zoological, the latter on botanical, researches carried on during a voyage to Hudson's Bay on board the *Alert*, which, in the summer of 1886, visited and relieved the various meteorological stations in that locality. There are some interesting communications in the form of "Miscellaneous Notes and Observations"; and last, but by no means least, is Part 11 of the "Fauna and Flora of Norfolk," being Section II. of a list of the birds observed in the county by Messrs. Gurney and Southwell.

THE journal *Caucase* states that the Imperial Society of the "friends of natural science, ethnography, and anthropology" are devoting particular attention to the zoology of the Caucasus. In 1885 the Society sent a mission to study the fauna of Erivan and of the coast of the Black Sea, and this year it has sent out two expeditions, one to study the fauna of the coast of the Caspian, the other that of the environs of Tiflis and the Lakes Gotchka, Paleoston, and others.

THE death is announced of Dr. Johann Krejci, Professor of Geology at the University of Prague and a member of the Bohemian Parliament.

THE Imperial Leopold-Caroline Academy of Naturalists, at Halle, celebrated its two-hundredth anniversary on August 7.

A VOLCANIC eruption lately occurred in the Island of Galita, on the Algerian coast. The streams of lava were numerous, and the light of the fire was visible for forty miles around.

ON July 26 a severe shock of earthquake was felt at Obernzell, Wegscheidt Messnerschlag, in Lower Bavaria.

A SEVERE earthquake was noticed in Ecuador on August 2, at 6.29 p.m. Great damage was done in many cities, but Cuenca suffered most, many of the houses falling in, and others being seriously damaged. Shocks of earthquake were also felt in several places in Indiana, Kentucky, Tennessee, and on the eastern banks of the Missouri.

THE additions to the Zoological Society's Gardens during the past week include a Red and Blue Macaw (*Ara macao*) from Central America, presented by Dr. and Mrs. T. W. Allright; a Carrion Crow (*Corvus corone*), European, presented by Mr. George Nicholson; a Fieldfare (*Turdus pilaris*), presented by Colonel Verner; a Hive of Bees, presented by Mr. T. Bates Blow; four Geckos, four Frogs from Italy; two Lineated Chalcis (*Chalcides lineatus*) from the South of France; two Dark-green Snakes (*Zamenis atrovirens*), two Natterjack Toads (*Bufo calamita*) from Germany, purchased; a Bennett's Wallaby (*Halmaturus bennetti*), two Viscachas (*Logostomus trichodactylus*), three Wood Hares (*Lepus sylvaticus*), born in the Gardens; a Bronze-spotted Dove (*Chalcopelia chalcospilos*), two Hybrid Spotted Zenaida Doves (between *Zenaida maculata* ♂ and *Z. auriculata* ♀), bred in the Gardens.

OUR ASTRONOMICAL COLUMN

NEW VARIABLE OF THE ALGOL TYPE.—Mr. E. Sawyer announces in No. 159 of *Gould's Astronomical Journal* his discovery that the star 155 (*Uran. Argent.*) Canis Majoris is a variable of the Algol type. A diminution in the light of the star was first observed on March 26; the star was then observed again on March 29 and 30, and April 6, 7, 9, and 10, and appeared on each occasion to be of about its normal brightness. On April 11 at 8h. 15m. it was again found to be faint, but had recovered brightness by 9h. On April 19 another minimum was